

Fishery Bulletin

CONTENTS

Vol. 81, No. 2

April 1983

DURBIN, EDWARD G., and ANN G. DURBIN. Energy and nitrogen budgets for the Atlantic menhaden, <i>Brevoortia tyrannus</i> (Pisces: Clupeidae), a filter-feeding planktivore	177
GILMORE, R. GRANT, JON W. DODRILL, and PATRICIA A. LINLEY. Reproduction and embryonic development of the sand tiger shark, <i>Odontaspis taurus</i> (Rafinesque).....	201
CRESSEY, ROGER F., BRUCE B. COLLETTE, and JOSEPH L. RUSSO. Copepods and scombrid fishes: A study in host-parasite relationships.....	227
REILLY, STEPHEN B., DALE W. RICE, and ALLEN A. WOLMAN. Population assessment of the gray whale, <i>Eschrichtus robustus</i> , from California shore censuses, 1967-80.....	267
ROBISON, BRUCE H., and JAMES E. CRADDOCK. Mesopelagic fishes eaten by Fraser's dolphin, <i>Lagenodelphis hosei</i>	283
BROWN, ROBIN R., and BRUCE R. MATE. Abundance, movements, and feeding habits of harbor seals, <i>Phoca vitulina</i> , at Netarts and Tillamook Bays, Oregon	291
BEACHAM, TERRY D. Variability in median size and age at sexual maturity of Atlantic cod, <i>Gadus morhua</i> , on the Scotian Shelf in the northwest Atlantic Ocean	303
JOHNSON, James R., and JOSEPH G. LOESCH. Morphology and development of hatchery-cultured American shad, <i>Alosa sapidissima</i> (Wilson).....	323
HOWELL, W. HUNTTING. Seasonal changes in the ovaries of adult yellowtail flounder, <i>Limanda ferruginea</i>	341
CAMPBELL, A., and M. D. EAGLES. Size at maturity and fecundity of rock crabs, <i>Cancer irroratus</i> , from the Bay of Fundy and southwestern Nova Scotia.....	357
QUINN, WILLIAM H., and VICTOR T. NEAL. Long-term variations in the Southern Oscillation, El Niño, and Chilean subtropical rainfall	363
VENRICK, E. L. Percent similarity: The prediction of bias	375

Notes

GADBOIS, DONALD F., and RICHARD S. MANEY. Survey of polychlorinated biphenyls in selected finfish species from United States coastal waters.....	389
--	-----

(Continued on next page)

Seattle, Washington

1983

Notes

DIVITA, REGINA, MISHELLE CREEL, and PETER F. SHERIDAN. Foods of coastal fishes during brown shrimp, <i>Penaeus aztecus</i> , migration from Texas estuaries (June-July 1981)	396
LEWIS, ROBERT M., and MAYO H. JUDY. The occurrence of spot, <i>Leiostomus xanthurus</i> , and Atlantic croaker, <i>Micropogonias undulatus</i> , larvae in Onslow Bay and Newport River estuary, North Carolina	405
McCABE, GEORGE T., JR., CLIFFORD W. LONG, and STEVE L. LEEK. Survival and homing of juvenile coho salmon, <i>Oncorhynchus kisutch</i> , transported by barge ...	412
WESPESTAD, VIDAR G., KENNETH THORSEN, and SALLY A. MIZROCH. Movement of sablefish, <i>Anoplopoma fimbria</i> , in the northeastern Pacific Ocean as determined by tagging experiments (1971-80)	415
DUDLEY, RICHARD G., and T. GLENN McGAHEE. Winter and altered spring movements of striped bass in the Savannah River, Georgia	420
WHORISKEY, F. G., JR. Intertidal feeding and refuging by cunners, <i>Tautoglabrus adspersus</i> (Labridae)	426
PETERSON, CHARLES H., HENRY C. SUMMERSON, and STEPHEN R. FEGLEY. Relative efficiency of two clam rakes and their contrasting impacts on seagrass biomass	429
MOFFITT, ROBERT B. <i>Heterocarpus longirostris</i> MacGilchrist from the Northern Mariana Islands	434

Notices

NOAA Technical Reports NMFS published during the last 6 months of 1982

The National Marine Fisheries Service (NMFS) does not approve, recommend or endorse any proprietary product or proprietary material mentioned in this publication. No reference shall be made to NMFS, or to this publication furnished by NMFS, in any advertising or sales promotion which would indicate or imply that NMFS approves, recommends or endorses any proprietary product or proprietary material mentioned herein, or which has as its purpose an intent to cause directly or indirectly the advertised product to be used or purchased because of this NMFS publication.